(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059422 A1

(51) International Patent Classification[7]: F16L 15/06, E21B 17/042

(21) International Application Number: PCT/EP2004/013743

(22) International Filing Date: 2 December 2004 (02.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0314527 11 December 2003 (11.12.2003) FR

(71) Applicants *(for all designated States except US)*: **VALLOUREC MANNESMANN OIL & GAS FRANCE** [FR/FR]; 54, rue Anatole France, F-59260 Aulnoye-Aymeries (FR). **SUMITOMO METAL INDUSTRIES, LTD** [JP/JP]; 5-33 Kitahama 4 chome, Chuo-ku, Osaka-shi, Osaka 541-0041 (JP).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **ROUSSIE, Gabriel** [FR/FR]; 6, rue Hautebois, F-59242 Cappelle en Pévèle (FR).

(74) Agents: **ROUSSET, Jean-Claude** et al.; Cabinet Netter, 36, avenue Hoche, F-75008 Paris (FR).

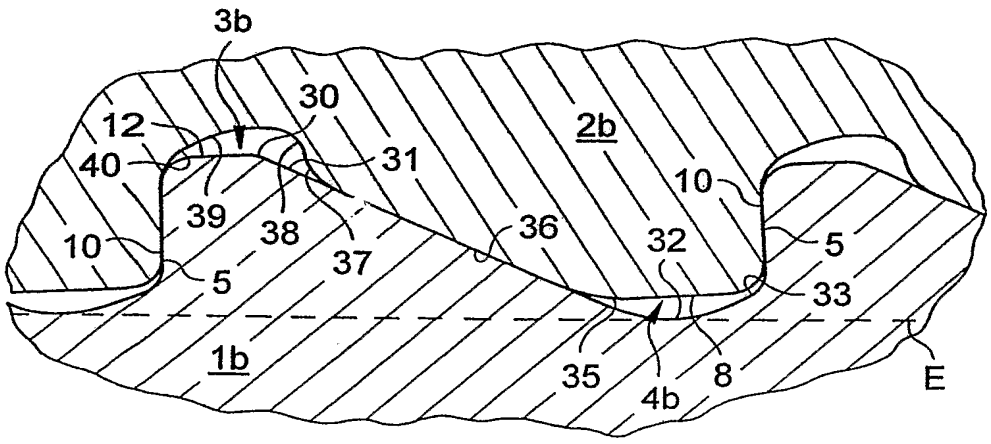
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** IMPROVEMENT OF RESISTANCE TO FATIGUE OF A THREADED TUBULAR CONNECTION



(57) **Abstract:** Radial interference between the male (3b) and female (4b) threadings operates between stabbing flanks (31, 36) inclined at about 27° with respect to the axis of the threadings, wherein the mutual contacting surfaces are radially spaced from the root of the male threading (32), which is defined by a concave rounded portion. Thus micro-cracks caused by friction between these surfaces during relative movements of the male and female threaded elements are not affected by tensile stresses moving along the, envelope (E) of the male thread root (32), improving the fatigue resistance of the connection. Application to hydrocarbon wells connected to offshore platforms.

WO 2005/059422 A1